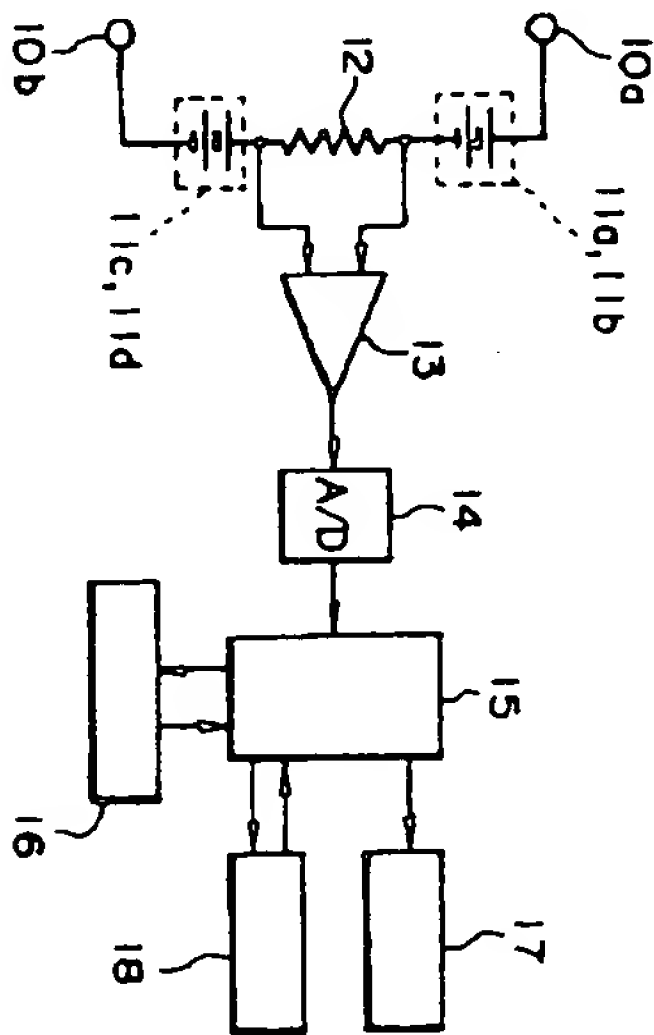


(54) BATTERY DEVICE

- (11) 5-290894 (A) (43) 5.11.1993 (19) JP
 (21) Appl. No. 4-82452 (22) 3.4.1992
 (71) SONY CORP (72) MORIO YOSHIMATSU
 (51) Int. Cl⁵. H01M10/48

PURPOSE: To enable a user to predict the usage limit of a battery by displaying the discharge frequency information from a computation processing unit as the usage frequencies of a battery device with a display circuit consisting of a liquid crystal display or the like.

CONSTITUTION: A plurality of chargeable batteries 11a to 11d are connected in series, and batteries 11a to 11d are connected between the cathode side of the battery 11b and the anode side of the battery 11c via a detecting resistor 12 upon the series connection of the batteries. An anode terminal 10a is connected to the anode side of the battery 11a, accordingly electrical connection with an electronic apparatus, an apparatus for charging, or the like becomes possible. When an electronic apparatus or the like is connected to the anode terminal 10a and the cathode terminal 10b, the power stored in the batteries 11a to 11d is supplied to a load via the anode terminal 10a and the cathode terminal 10b. In this case, the resistor 12 converts the current flowing in the load into voltage for detection. The output is amplified (13) and transmitted to the processing unit 15 so as to calculate the discharge frequencies of the batteries.



16: memory circuit, 17: display circuit, 18: reset circuit

(54) BATTERY PACK

- (11) 5-290895 (A) (43) 5.11.1993 (19) JP
 (21) Appl. No. 4-86845 (22) 8.4.1992
 (71) SANYO ELECTRIC CO LTD (72) SHOICHI TOYA
 (51) Int. Cl⁵. H01M10/48

PURPOSE: To provide a battery pack which can be conveniently used by accurately displaying the capacity of the battery in three grades with a simple circuit, and reduce the manufacturing cost by reducing a component unit price.

CONSTITUTION: A battery pack is provided with a secondary battery and a

